GOVERNMENT OF INDIA
AGRICULTURE
LOK SABHA

UNSTARRED QUESTION NO:2588
ANSWERED ON:14.03.2001
SURVEY OF MECHANICAL AND CATTLE ENERGY
PRAHLAD SINGH PATEL

Will the Minister of AGRICULTURE be pleased to state:

(a) whether any survey has been conducted to ascertain the ratio of mechanical energy and cattle energy being used in the Agriculture sector;

(b) if so, the details thereof; and

(c) if not, the reasons therefor?

Answer

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (DR. DEBENDRA PRADHAN)

(a) No, Sir. However estimates have been made on the basis of Indian Livestock Census Report 1992 and projections made thereof based on the trend in draught animal population and production of tractors, power tillers and diesel engines.

(b) & (c): Based on the secondary data and estimated population of draught animals, tractors, power tillers, diesel engines and electric motors the time series power availability from different sources since 1971-72 are given in Annexure-A. It is estimated that the power availability in India in the year 2001-2002 would be about 1.23 kW/ha out of which 0.121 kW/ha (9.89%) will be from draught animals and 0.767 kW/ha (62.36%) from mechanical sources (tractors 41.96%) power tillers 0.54% and diesel engines (19.86%). Thus the estimates ratio of use of cattle energy to mechanical energy would be estimated as 1:6.33.

Annexure-I

Contribution of different power sources to total power availability in India

Share of total power, %

Year	Agric Worker	Draught Animal	Tractor	Power Tiller	Disel Engine	Electric Motor	Total power, kW/ha
1971-72	15.11	45.26	7.49	0.26	18.11	13.77	0.295
1981-82	10.92	27.23	19.95	0.33	23.79	17.78	0.471
1991-92	8.62	16.55	30.21	0.40	23.32	20.90	0.759
2001-02+	6.49	9.89	41.96	0.54	19.86	21.26	1.231
2005-06+	5.77	8.02	46.70	0.60	18.17	20.73	1.502

+ Estimated

Reference: Dipanker De, R.S. Singh and Hukum Chandra (2000). Power Availability in Indian Agriculture. Technical Bulleting No. CIAE/2000/83, Central Institute of Agricultural Engineering Bhopal - 462038